

**SYNONYMY OF *CECODITHA* (CECODITHINAE)
WITH *AUSTROCHTHONIUS* (CHTHONIINAE)
(CHELONETHI, CHTHONIIDAE)**

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ABSTRACT. The holotype of *Cecoditha parva* Mello-Leitão 1939, from Chubut Province, Argentina, is redescribed and shown to be a typical member of the genus *Austrochthonius* Chamberlin 1929. The monotypic genus *Cecoditha* Mello-Leitão 1939 is therefore a junior subjective synonym of *Austrochthonius*, while the subfamily Cecodithinae Chamberlin & Chamberlin 1945 (Tridenchthoniidae) is a junior subjective synonym of Chthoniinae Daday 1888 (Chthoniidae).

RESUMEN. El holotipo de *Cecoditha parva* Mello-Leitão 1939, de la provincia de Chubut, Argentina, es redescrito y se demuestra que es un miembro típico del género *Austrochthonius* Chamberlin 1929. El género monotípico *Cecoditha* Mello-Leitão 1939 es por lo tanto un sinónimo subjetivo posterior de *Austrochthonius*, mientras que la subfamilia Cecodithinae Chamberlin & Chamberlin 1945 (Tridenchthoniidae) es un sinónimo subjetivo posterior de Chthoniinae Daday 1888 (Chthoniidae).

Keywords: Pseudoscorpion, taxonomy, Argentina

In 1939, Mello-Leitão described a seemingly unusual new genus and species of false-scorpion, *Cecoditha parva* Mello-Leitão, from southern Argentina. Mello-Leitão assigned *Cecoditha* to the subfamily Dithinae Chamberlin (now Tridenchthoniidae Balzan), but he did not give his reasons for doing so or discuss its relationships with other genera.

Impressed by the incongruity of its characters, Chamberlin & Chamberlin (1945: 14) created a new subfamily, Cecodithinae, for *C. parva*, writing "This species, if correctly described, is unique in possessing a simple galea ("Galea sencilla") in the adult stage. This feature, together with the fact that the species also reportedly lacks coxal spines and had the tactile setae *IB* and *ISB* placed sub-medially instead of sub-basally on the dorsum of the hand of the chela, sets the species widely apart from all other known Tridenchthoniidae and necessitates its segregation in a separate subfamily." It is curious that Chamberlin & Chamberlin did not question the assignment of *C. parva* to the Tridenchthoniidae, despite their doubts about the accuracy of the original description. They might have been more cautious had they known that Mello-Leitão was capable of prodigious errors of classification (e.g., see Krantz & Platnick 1995).

With the lack of subsequent records of Cecodithinae, the systematic position of *C. parva* became increasingly doubtful. In the hope of resolving the matter, I asked to borrow the unique type of this species from the Museo de La Plata in 1982, but was informed at that time that it could not be found. Fortunately, the specimen was rediscovered in the collection years later by Lic. R.F. Arrozpide, who kindly sent it for study. Although the holotype is in poor condition, it is clearly a member of the chthoniid genus *Austrochthonius* Chamberlin.

Family Chthoniidae Daday
Subfamily Chthoniinae Daday

Chthoniinae Daday 1888: 133.

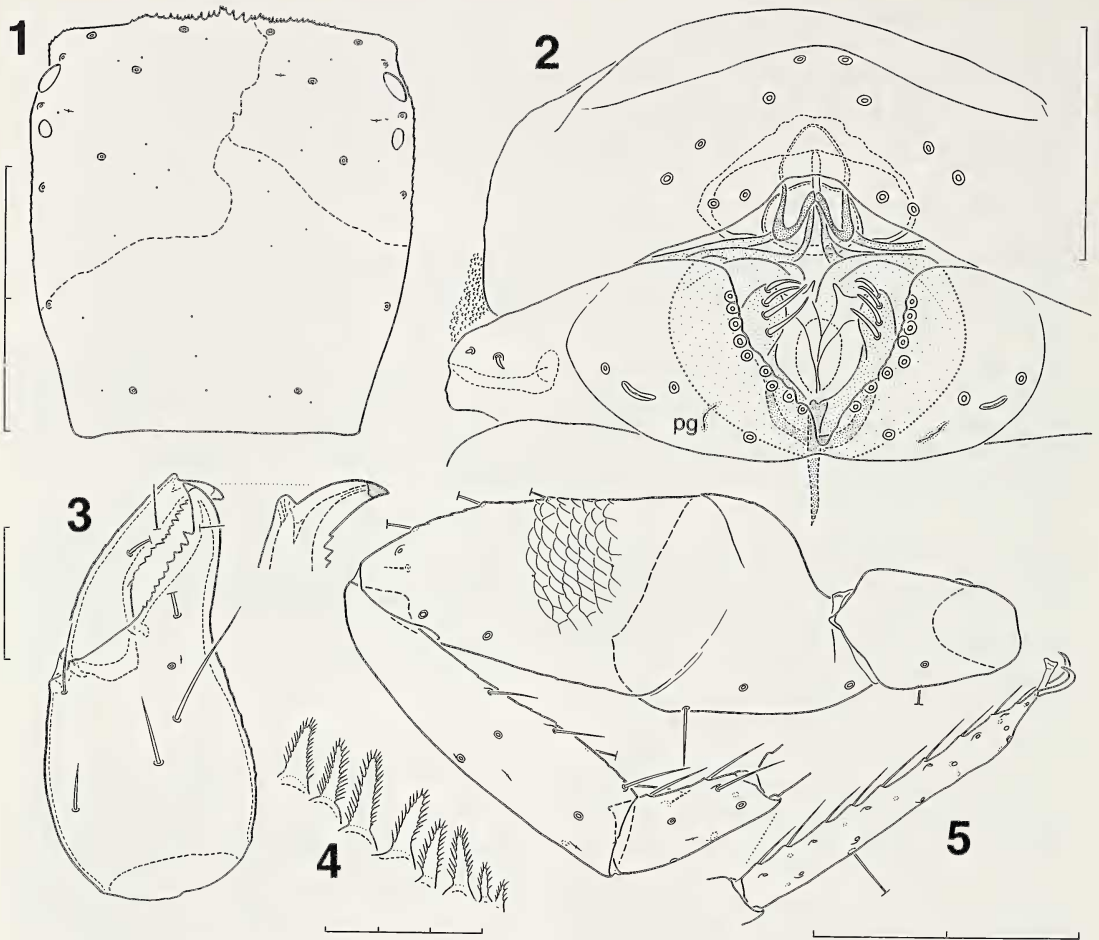
Cecodithiinae [*lapsus* for Cecodithinae] Chamberlin & Chamberlin 1945: 65; Harvey 1991: 217.
NEW SYNONYMY.

Cecodithinae Chamberlin & Chamberlin – Harvey 1992: 1401.

Austrochthonius Chamberlin

Austrochthonius Chamberlin 1929: 68 (type species *Chthonius chilensis* Chamberlin 1923, by original designation); Beier 1932: 38; Vitali-di Castri 1968: 144–145; Harvey 1991: 139.

Paraustrochthonius Beier 1931: 52 (type species *Paraustrochthonius tullgreni* Beier 1931, by original designation); Beier 1932: 40; Vitali-di Castri



Figures 1–5.—*Austrochthonius parvus* (Mello-Leitão), holotype male. 1. Carapace (reconstructed; dots represent gland pores); 2. Genital region; 3. Left chelicera, with detail showing spinneret; 4. Coxal spines of right coxa II; 5. Right leg IV (reticulation only shown in part). Abbreviation: *pg* = pore group. Divisions of scale lines = 0.1 mm (Figs. 1–3, 5) or 0.01 mm (Fig. 4).

1968: 144–145. Synonymized by Beier 1976: 203.

Cecoditha Mello-Leitão 1939: 115–116 (type species *Cecoditha parva* Mello-Leitão 1939, by original designation); Chamberlin & Chamberlin 1945: 65–66; Harvey 1991: 218; Kury & Nogueira 1999: 13. NEW SYNONYMY.

Austrochthonius parvus (Mello-Leitão)
NEW COMBINATION

Figs. 1–9

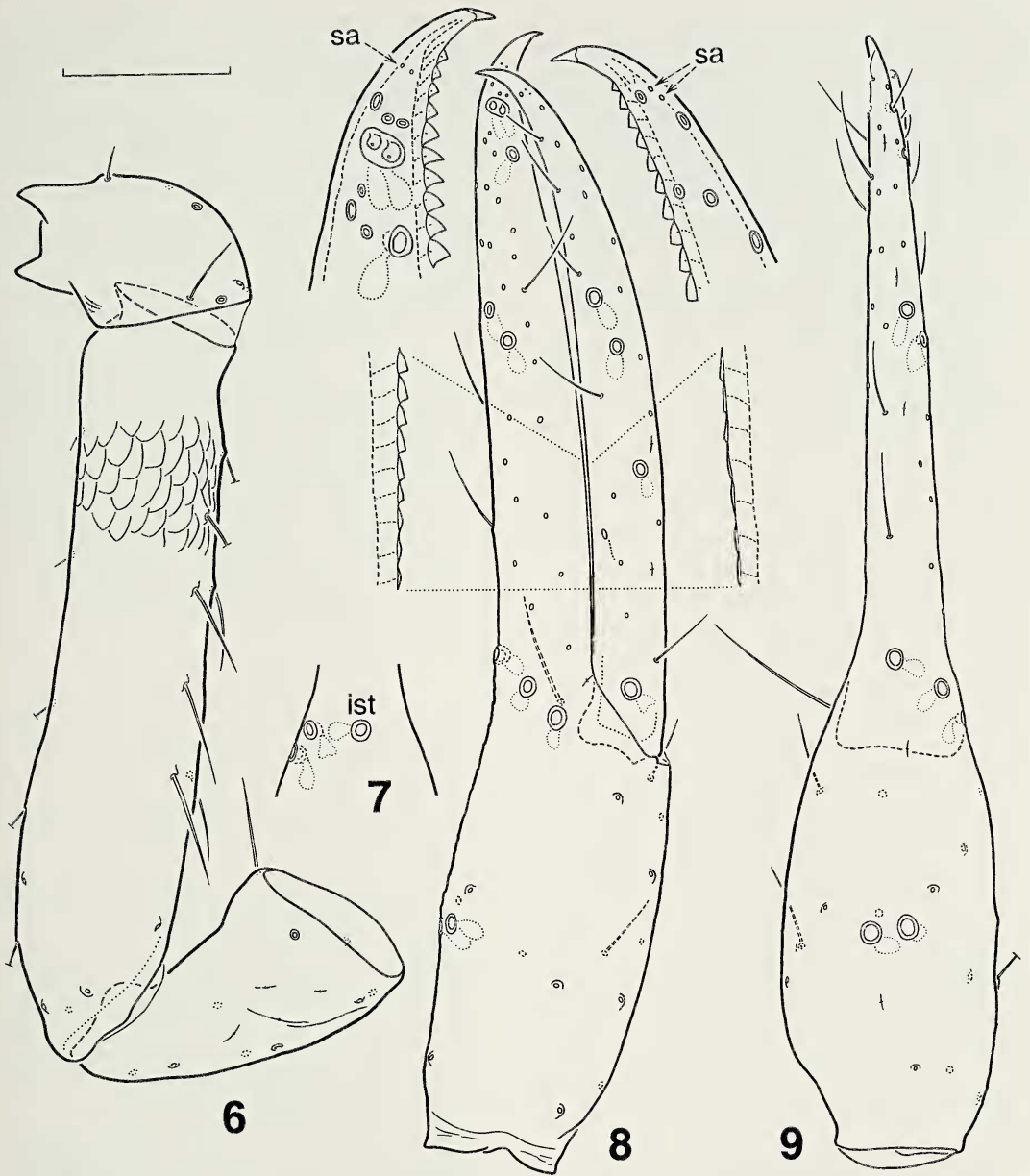
Cecoditha parva Mello-Leitão 1939: 116–117, figs. 1a, b; Chamberlin & Chamberlin 1945: 66–67, fig. 17; Harvey 1991: 218; Kury & Nogueira 1999: 13.

Material examined.—Holotype ♂, “*Cecoditha parva* M.L./Mel.-Leit. det.; [Puerto] Madryn, Chu-

but, 18.II.1938, [M.] Bir[abén]” (Museo de La Plata, Universidad Nacional de La Plata). Specimen in poor condition—carapace broken into three pieces; right chelicera, both legs I (including coxae) and left leg IV lost—and strongly darkened as a result of storage in corked tube.

Diagnosis.—Moderately large species (e.g., movable chela finger length 0.43 mm), male with well developed spinneret tubercle, tergites I–IV with 4 setae, chelal teeth contiguous.

Description.—Carapace (Fig. 1) with weak reticulation, laterally hispid (especially anteriorly); anterior margin strongly serrate medially, but without a pronounced epistome; anterior eyes with strong lens, roughly one ocular diameter from anterior margin, poste-



Figures 6-9.—*Austrochthonius parvus* (Mello-Leitão), holotype male, palps. 6. Trochanter, femur and patella of right palp (reticulation only shown in part). 7. Base of fixed finger of left chela, showing position of *ist*; 8. Right chela, lateral, with details of dentition and sensilla; 9. Right chela, dorsal. Abbreviation: *sa* apical sensilla. Scale line = 0.1 mm (0.05 mm for details).

rior eyes reduced to weak spots; setae 6:4:4:2:2 (18); scattered pores present. Tergites reticulate, setae 4:4:4:4:6:6:6:6:4:1T2T1:0; each tergite with a row of pores just in front of setal row. Coxal setae P 5 (2 on manducatory process, subapical long):I ?:II 4:III 5:IV 5; coxa II with 7-8 bipinnate spines, bases

almost contiguous (Fig. 4); intercoxal tubercle absent. Anterior genital operculum (Fig. 2) with 12 setae; posterior operculum (Fig. 2) with (3m)6(3m), plus 8-9 setae on each side of notch (total (3m)17(3m)); remaining sternites 11:10:8:8:8:8:7:0:2, sternite X with a small, unpaired, median seta; anterior genital

sternite with three pores grouped on each side (*pg*, Fig. 2), other sternites with a normal row of pores in front of setal row; stigmata normal, not situated on a separate sclerite; pleural membrane papillate. Genitalia (Fig. 2) typical, with 4 pairs of glandular setae, *ace* elongate (see Vitali-di Castri 1976). Lateral and median genital sacs not seen. Chelicera (Fig. 3) with hand and base of movable finger scaly-reticulate; hand with 6 setae; fixed finger with 10 teeth, moveable finger with 13; flagellum of 11 blades, basal blade short; serrula exterior and serrula interior with about 13 blades; spinneret in the form of a distinct tubercle. Palp (Figs. 6–9) with femoral setae 3:5:1:2:5:1; patella with ten setae; hand with 3 proximal, 7 medial and 4 distal setae; fixed finger with a single strong seta at base; dorsum of hand moderately hispid distad of *ib/lsb* and slightly depressed behind; fixed finger with 47, movable finger with 37 contiguous teeth, those of movable finger generally weaker than those of fixed finger, becoming obsolete proximally; apical sensilla (Fig. 8: *sa*) small and close together, near tip; proximal sensilla near dental margin, about $\frac{2}{3}$ way from *b* to *sb*; trichobothria as illustrated, position of *ist* variable (compare Figs. 7 and 9). Leg IV (Fig. 5) with scaly reticulation on all segments; setae (trochanter to basitarsus) 2:3:7:9:9, basitarsal TS 0.31, telotarsal TS 0.30. Measurements (in mm; ratios in parentheses): carapace (estimated) 0.43×0.39 ; palp femur 0.45×0.10 (4.5), tibia 0.20×0.11 (1.9), hand 0.26×0.13 (2.0), chela 0.67 (5.3), movable finger 0.43 (finger/hand 1.7); leg IV femur 0.20×0.17 (1.2), patella 0.26×0.15 (1.7), femur+patella 0.40 (2.4), tibia 0.30×0.07 (4.2), basitarsus 0.14×0.055 (2.5), telotarsus 0.27×0.03 (8.6).

Remarks.—Although there was no registration number or indication of type status with the specimen, the locality details and the identification leave no doubt that this is the holotype. Kury & Nogueira's (1999) assumption that "syntypes" existed is an error, since Mello-Leitão (1939) only mentioned the male "Tipo." The original description contains many errors, the most important of which are the statements that *A. parvus* lacks eyes and coxal spines, and has only six blades in the flagellum. The measurements of the palp are also slightly lower than those given here.

This species can be separated from the oth-

er members of *Austrochthonius* by the combination of characters given in the diagnosis; the well developed spinneret tubercle of the male is particularly distinctive. The presence of six setae on the hand of the single remaining chelicera is also unusual, but more material is required to determine whether this is anomalous. Vitali-di Castri (1968) found six setae on one chelicera of *A. insularis* Vitali-di Castri, the normal number being five.

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